FRIENDS' INTELLIGENCER.

"TAKE FAST HOLD OF INSTRUCTION; LET HER NOT GO: KEEP HER; FOR SHE IS THY LIFE."

VOL. XVII. PHILADELPHIA, EIGHTH MONTH 4, 1860. No. 21.

EDITED BY AN ASSOCIATION OF FRIENDS.

PUBLISHED BY WM. W. MOORE,

No. 324 South Fifth Street,

PHILADELPHIA,

Every Seventh day, at Two Dollars per annum, *payable in advance*. Three copies sent to one address for Five Dollars.

Communications must be addressed to the Publisher free of expense, to whom all payments are to be made

The postage on this paper, paid in advance at the office where it is received, in this State, is only 13 cents per annum; if out of the State, to any part of the United States, 26 cents.

AGENTS.—Joseph S. Cohu, Joseph T. McDowell, *New York*. Benj. Stratton, *Richmond, Ind.*

From Janney's History of Friends.

SOME ACCOUNT OF THE SUFFERINGS (FOR CONSCIENCE' SAKE) OF OUR EARLY FRIENDS.

In the year 1654, there were, in the Society of Friends, about sixty ministers, who, being called and qualified by the great Head of the Church to preach the gospel of peace, became instrumental in making many proselytes, and settling meetings in various places. But in proportion as the principles of Friends were spread, and their numbers augmented, the opposition and persecution they endured continued to increase; being chiefly instigated by the clergy, whose emoluments were endangered by the success of a free gospel ministry.

Among those who labored much and suffered long for the cause of truth, William Dewsbury, whose convincement has already been mentioned, now claims our attention. In the spring of the year 1654, he was travelling through Yorkshire, holding meetings for public worship, and "confirming the brethren from house to house," when Edward Bowles, a clergyman who officiated in the cathedral at York, lodged information against him with the foreman of the grand jury. In this accusation, he was called a "ringleader of the persons called Quakers, and it was stated that he was then going up and down in the West Riding of Yorkshire, dispersing principles prejudicial to the truth of the gospel and the peace of the Commonwealth." On this information, Judge Wyndham granted a warrant for his apprehension, and a constable, armed with an iron fork, proceeded to Tholthorpe, where William Dewsbury and his friends were found in a meeting, waiting upon God. Although the officer came into the meeting as though he intended to commit an act of violence, yet his bloody purpose was frustrated, either by the solemn and dignified deportment of the Friends, or by that divine power whose presence was felt to be in the midst of them. He did not, however, abandon his purpose, but went to Kirby Hall, the residence of Thomas Dickenson, a justice of the peace, and there procured another warrant for William Dewsbury's apprehension and imprisonment.

At Crake, a small town about twenty-five miles north-west of York, he was apprehended by John Lockwood, the high constable, and taken before Justice Dickenson, who being unable to prove anything against him, committed him to York Castle, by virtue of the warrant previously issued by Judge Wyndham.

Here he remained a prisoner three months, until the general assizes, when Judge Wyndham sat upon the bench. William Dewsbury and his friends courting an investigation, interceded with the judge to bring him and his accuser face to face in open court; but this reasonable request was denied, and without a trial the innocent sufferer was cleared by proclamation and set at liberty.

After his release, he continued to travel in the work of the ministry, holding meetings in Cleveland and other parts of Yorksire, Nottinghamshire, and at Derby. He was, however, left at liberty only about a month, when he was again arrested while preaching to the inhabitants of Derby, and carried before the court then in session. The first question propounded to him was, "In whose presence does thou now stand?" He replied, "In the presence of the everlasting God." The justice then said, "Jailer, take him away, and put him in prison for disturbing the court." He was accordingly conducted to prison, where he remained until the evening, when the mayor sent for him, and asked him, "What he came to do?" He answered, "I came to declare the word of the Lord to the consciences of the people of Derby." The mayor

asked him, if he would go out of the town? William Dewsbury answered, "When the Lord orders me to go forth, then I shall go; till then, I shall stay." The mayor then remanded him to prison. The next day, in the forenoon, one of the mayor's officers came to the prison and said to him, "If thou wilt go out of the town and come into it no more, I will open the prison doors." Dewsbury replied, "Out of the town I shall not go, until I am ordered of the Lord; and if thou openest the door I shall not go forth from the prison, till the man who said he had authority to put me in, come by the same authority and take me out." The officer then left him, and soon after the man under whose charge he was committed to prison came, and having opened the prison door, took him by the arm and thrust him out. He was then delivered to an officer, who put him out of the town, charging him with threats to depart and not return. These threats were, however, disregarded by William Dewsbury, who being conscious of his innocence, and constrained by a sense of duty, returned to Derby, and there continued until he felt freedom to depart. Pursuing his journey, he came to Leicester, and there, on the first day of the week, a large number of persons assembled to hear him, to whom he declared the gospel of Christ. He then went to the public place of worship, and after the minister had done, he preached the word of eternal life to the people, who heard him with much attention. Before he had finished his discourse two officers laid hands on him, and with violence carried him before the mayor of the city, who, without examination, committed him to prison. The next day he was brought before the mayor and another officer, who proceeded to examine him, and although nothing was proved against him, they ordered the jailer to put him out of the town, threatening to treat him with severity if he should return. He was accordingly conducted beyond the limits of the city; but this illegal and unjust proceeding did not prevent his immediate return, and he resumed his religious labors in Leicester. At length, feeling himself clear to depart, he travelled into Northamptonshire, and at the town of Wellingborough he preached the word of life, which many received with gladness. His success excited the animosity of Thomas Andrews, the resident clergyman, who said to him in the street, "Give over deceiving the people, lest the plagues of God fall upon thee." William Dewsbury answered, "If thou sayest I deceive the people, make it appear wherein I deceive them." He replied, "Thou tellest them there is no original sin." "Didst thou hear me say so?" rejoined Dewsbury. No answer being returned, he added, "Thou must either prove what thou accusest me of, or own thy condemnation upon thy false accusation." The clergyman made no reply, but hastened away.

About three weeks afterwards, being in the 10th month, 1654, William Dewsbury, having been absent from Wellingborough, returned, and went to the parish house of worship. He stood in silence until Andrews had gone through the service, and then embraced the opportunity to preach to the people, who listened with attention. Having finished his exhortation, he turned to Andrews, saying, "Thou hast accused me of deceiving the people; prove thy accusation now before the people, or acknowledge the falsehood of it." The priest made no answer, but departed. Upon this, William Dewsbury was hauled out of the house into the yard, where he found another opportunity to address the congregation, who stood quietly to hear him, until the high-constable came to arrest him. He was conducted to the market-place, but when it was found that nothing could be proved against him, he was liberated.

He then retired to the house of his friend, Francis Ellington, and from an upper window, preached to the people assembled below, "many of whom received the word in much love." Francis Ellington was a woollen manufacturer and upholster at Wellingborough, who, having previously been convinced through the ministry of William Dewsbury, invited him to his house, and afterwards became his fellow-prisoner for the testimony of the gospel.

William Dewsbury was not long permitted to enjoy this hospitable retreat: for on the following day, the constable having procured a warrant for the apprehension of "one who is commonly called a Quaker," came to arrest him. Francis Ellington remonstrated with the officer for attempting to arrest his friend under a warrant so vague that the name of the party to be arrested was not even mentioned in it; but the constable persisted in his purpose, and conducted his prisoner before a justice of the peace, who committed him to the common jail at Northampton, there to await the assizes.

Joseph Storr was also committed with him for no other offence than having come before the justice to witness the issue of his friend's examination.

It appears by a letter of John Whitehead's to George Fox, that the labors of William Dewsbury, in Yorkshire, were attended with remarkable success. He writes about this time, that there was a mighty thirst on every side, great meetings and many convincements.

The Friends in Northampton jail were kept nearly two weeks in an apartment twelve feet under ground, among thieves and murderers; and then were brought before the justices at the Quarter Sessions. Their mittimus was read, but they were refused a copy of it, and without examination they were remanded to jail till the next assizes, to be held about two months after. At the Sessions, Francis Ellington, who came thither

to hear the trial of his friends, being required to give sureties for his good behaviour, declined, and was committed to the same prison.

Henry Williamson was also committed before the next assizes for having attempted to speak to a congregation after the priest had gone through his services.

At the assizes, which began the 10th of the First month, 1655, William Dewsbury, Joseph Storr, and Henry Williamson, were brought before the judges, Matthew Hale and Hugh Wyndham, when the following examination took place.

Judge Hale.—Art thou Dewsbury?

W. Dewsbury.—Yea, I am so called.

Judge Hale.—Where dost thou live?

W. Dewsbury.—I have a wife and three children at Wakefield, in Yorkshire.

Judge.—What camest thou into this country to do, that thou didst not stay in thy own country with thy wife and children?

W. D.—I staid in that country with my wife and children until the Father revealed his son in me, and called me forth from my wife and children to declare his Word of Eternal Life, which he hath manifested to my soul in the great work of regeneration, in the new covenant of life in Christ Jesus. I am sent to preach the everlasting gospel to those that dwell upon the earth.

Judge.—I fear it is a delusion, and thine own fancies, and not the truth.

W. D.—Time will make it manifest.

Judge.—Thou drawest people together, and actest against ministry and magistracy.

W. D.—As thou standest in the presence of God, take heed of hearkening to false accusations. Ministry and magistracy which are of God, I own, but those who are called ministers of Christ, and walk contrary to scripture, I disown.

Judge.—But who are they that walk contrary to scripture?

W. D.—They that abide not in the doctrine of Christ, but have the chief place in the assemblies, stand praying in the synagogues, love greetings in the market-places, and are called of men masters—which practices Christ cried wo against; and they that walk in them walk contrary to Scripture.

Judge.—These are small things to speak of.

W. D.—There is nothing small which the Lord commands.

Judge.—Thou sayest well. [*To the Court.*] What have you against these men?

W. D.—That is what we would have manifested, what law we have transgressed.

Judge.—Produce what you have against them, and I shall proceed according to law.

Clerk of the Peace.—Here are papers which Dewsbury and Storr had, which are against the Lord Protector.

W. D.—The papers they took from me, which they say are against the Lord Protector, I was moved to write. I sent one to him privately with care, in the Fourth month in last year, and the other hath been privately delivered to him; and privately I kept the copy of the paper, until I was apprehended by virtue of a warrant granted by Justice Pentlow. . . . . Then they took these papers from me which I had privately on me in a letter-case, which here they produce publicly as an evidence against me.

Judge.—Read the paper. [*When part of it was read.*] Give over, that paper is not to be published.

W. D.—It is not my mind that they should be published.

Judge.—How darest thou write to him in such high language, as from the spirit of the Lord?

W. D.—They in whom the spirit of the Lord is, write from the spirit, and he that hath not the spirit of Christ is none of his.

Judge.—But I fear it is not from the spirit, for many pretend to the spirit and the divine light and revelations, but how shall we know they are the truth according to the Scriptures?

W. D.—The Scriptures cannot be known but by the pure divine light of Christ, which enlightens every one that comes into the world; of which pure light Christ hath given to every one a measure to try the spirits in them, whether they be of God or not. "Every spirit that confesseth Christ is come in the flesh, is of God; but he that denies that Christ is come in the flesh is the spirit of Antichrist." And this light gave the Scriptures forth, which light leads to Christ, who reveals the Father to the soul which gives up to be guided by him. So the soul comes to know God by the revelation of Jesus Christ, and they who walk in the spirit are known by their fruits in all their words and works. The prophet Amos had the spirit of the Lord, and from the spirit declared the word of the Lord to the king of Israel, but the people could not bear his words.

Judge.—Thou sayest well, if thou doest as thou sayest; but this it may be will be expected, and I think it will be fair to give bail for your appearance at the next assizes.

W. D.—First make manifest what law we have transgressed before bail be required.

[After this, the prisoners were set aside, and the judge proceeded to other business, till the court was ready to adjourn in the evening, and then the jailer asked the judge what he should do with those Yorkshiremen.]

Judge.—Bring them before the court.

[This being done, some of the court said, "Take off their hats," and two of their hats were taken off; but as they were about to take off William Dewsbury's the judge said, "Let it be on," and bade them put on the hats of the other two again, which was done at his command. He then spake to William Dewsbury.]

Judge.—Now I see what thou art, and thy vizard and form of fair words is seen, and thou art not the man thou pretendest to be.

W. D.—Vizards and formality I deny; but the power of God I own and witness, in which I stand, and am subject to it, and to the ordinances of man for conscience' sake.

Judge.—Now thou art commanded: Take off thy hat.

W. D.—Honor is not in pulling off the hat, but in obeying the just commands of God, and my hat offends not any. They who are offended at it may take it off; I shall not resist them. But there is no Scripture that expresses any honor to be in putting off the hat.

Judge.—What! must we do nothing but what is expressed in Scripture, for our apparel what we shall put on?

W. D.—Yea, the Scripture saith, "Let your adorning be with modest apparel."

Judge.—Art thou judge, that thou standest covered, and will not uncover, as other prisoners do?

W. D.—What I do, God is my witness, I do it not in contempt to any; but in obedience to the power of God for conscience' sake.

Judge.—If you will not stand as prisoners, I will not do any thing concerning you; but here I found you, and here I shall leave you.

W. D.—We have been above ten weeks in the low jail, and no breach of any law found against us: we stand subject to the power of God, whatever he suffers thee to do with us.

The court then proceeded to the examination of other prisoners.

On the 12th of the same month, the Judges, Wyndham and Hale, being together on the bench, they called for the prisoners, Dewsbury, Storr, and Williamson.

Judge Wyndham.—Take off their hats.

Judge Hale.—Read the evidence against them.

The evidence being read, the judge said, "Didst thou speak these words?"

William Dewsbury then related his intercourse with priest Andrews, and the circumstances which led to the disturbance in the market-place at Wellingborough; asserting that the breach of the peace and the tumult were caused by his accusers, and not by him. The examination then proceeded. William Dewsbury was questioned concerning his place of residence and occupation, after which, he and the other Friends were required to give sureties for their appearance at the next assizes; but they, being conscious that they were innocent, and had been unjustly imprisoned, refused to comply with the demand.

Judge Hale then said; "If you will not find sureties, you must lie here till the next assizes. Look to them jailer."

William Dewsbury meekly replied: "Do with us as thou hast power to do."

Accordingly, they were carried back to prison, and there confined, as before, in the low, noisome cell, among felons.

It is much to be regretted that the name of Judge Hale, otherwise so deservedly honored, should be found in connection with these disgraceful proceedings. He was, doubtless, influenced by the general odium then heaped upon Friends; but afterwards, when he came to know them better, his course towards them was very different. Great fears of political convulsions were then entertained, and the refusal of Friends to take the oath of allegiance and abjuration, subjected them to undeserved suspicion from the civil authorities. It was about this time that George Fox, as already related, was arrested, and carried before Oliver Cromwell.

(To be continued.)

REMARKABLE INCIDENT.

Margaret Greenwood was the daughter of parents living upon a small estate, in Yorkshire, England. From the cultivation of this small farm, and from knitting, the family derived their sole subsistence.

Margaret was afflicted at times, with bodily disease, which had a tendency to temper the natural vivacity of her disposition, and to render her more susceptible of religious impressions, and for a few years before her death she was much devoted to the promotion of piety.

About her twenty-seventh year she came forth in the ministry; her labors in which, as well as her innocent life and conversation, were acceptable to Friends.

Margaret was engaged to be married, as was also her sister; and both were expecting to be married on the same day. The intended husband of each had the name of John. One morning their father said pleasantly to his daughters that he supposed they would not give up their Johns for any consideration whatever. Margaret replied, after a pause, that there was one thing, and but one, for which she would give up her's; a place in the Kingdom of Heaven. She appeared then to be free from indisposition, but soon after as she sat employed in knitting, she breathed her last.

CONTENTMENT.

In the course of a religious visit on the Continent of Europe, George Dillwyn and two other Friends arrived at Minden.

Here they were joined by a woman who was engaged in spirit to seek after substance, and who, though she was blind, had walked to that place, seventeen miles, to meet them. She spun for a living, and her friends occasionally assisted her.

The visitors asked her if she were not straightened in this respect. She replied that she knew

she was poor; but that when the question arose in her mind, "Lackest thou anything?" the acknowledgement always succeeded, "Nothing Lord." Oh, that not any professor of the Christian name would ever fix his desires upon riches.

Here we see it exemplified, that "Godliness with contentment is great gain, having the promise of the life that now is, and of that which is to come."

THE SILVER TANKARD.

Daniel Gordon was a well-to-do farmer, who, more than one hundred years ago, resided in a rich valley in the State of Maine, on the verge of the wilderness, the nearest neighbor being some six miles distant. One morning as he was about leaving home with his family for his place of worship, he was called on by one of his nearest neighbors, whose name was Perkins. He informed Daniel, that Tom Smith, a daring robber, was prowling about the woods with two companions, and that he might expect a visit from them that day, as the silver tankard and other plate which Gordon was known to possess would tempt these marauders to plunder him during the expected absence of most of the family. "I don't think it safe for you all to go to meeting to-day," said Perkins. Daniel Gordon had intended to leave no one at home that day but his daughter Mehetabel, an interesting child about nine years old. His two sons had already started for the meeting-house, some ten miles distant. "Shall I go or stay?" was the question with Daniel. He was a Puritan, and had strict notions of duty, but then he was a father, and little Hetty was the joy of his heart. He soon settled the point. "I won't even take Hetty with me, for it will make her cowardly. The thieves may not come; neighbor Perkins may be mistaken; and if they do come to my house they will not hurt that child. At any rate, she is in God's hands, and we will go to worship Him who never forsakes those who put their trust in him."

As he settled this he said to the child, "If any strangers come, Hetty, treat them well. We can spare of our abundance to feed the poor. What is silver or gold, when we think of God's word?" With these words he drove off, a troubled man notwithstanding his religious trust.

About an hour or more afterwards, little Mehetabel, while seated at the window with her Bible, saw three men coming towards the house. She was not afraid of them, but was glad to see them, for she felt lonely.

"Father," thought she, "meant something when he told me to be kind to strangers! I suppose he expected them." So she ran to meet them, and invited them in, adding, "I am all alone; if mother was here she would do more for you, but I will do all I can;" and all this with a frank, loving heart, glad to do good to others, and glad to please her father whose last words were, to spare of their abundance to the weary traveller. Smith and his two companions entered. She asked if she could get them something to eat. Smith replied, "Yes, I will thank you, my child, for we are all hungry." This was indeed a civil speech for a thief, who, half starved, had been lurking in the woods to watch his chances to steal "the silver tankard" as soon as the "men folks" had gone to meeting.

"Shall I give you cold victuals, or will you wait till I can cook some meat?" asked Hetty. "We can't wait," was the reply, "give us what you have ready as soon as you can."

Smith helped her out with the table, she put on the silver tankard and spoons that her father had brought from the old country. The tankard was well filled with cider, and having set on some bread and a dish of cold meat, she invited them to the table. The child did her work freely and was unembarrassed, and took but little notice of the appearance of her guests, or probably she might have observed in their countenances some indications of confusion and surprise. They all moved to the table and ate, as hungry men are apt to do, almost in silence, drinking occasionally from the much coveted silver tankard.

When they had done, Smith started up suddenly, and said, "come, let's go." "What!" exclaimed the old robber, "go with empty hands when this silver is here?" And so saying, he seized the tankard. "Put that down," shouted Smith; "I'll shoot the man who takes a single thing from this house!" Poor Hetty was at once awakened to a sense of the character of her guests. With terror in her face, and yet with child-like frankness, she ran to Smith, took hold of his hand, and looked into his face, as if she felt sure that he would take care of her. The old thief looking to his young companion and finding that he was ready to give up the job, and seeing that Smith was resolute, put down the tankard, growling like a dog which had a bone taken from him, and left the house, followed by the others.

The silver tankard, as an heir-loom, has descended in the family, the property of the daughter Mehetabel, and is now in the possession of the wife of a clergyman in Massachusetts.

Perhaps there is not anything more calculated to make men blind to their own state and condition, than a mistaken zeal for the well-being of others. Without great watchfulness, this snare is peculiarly adapted to deceive even those who are really upright in their intentions.

Under the semblance of promoting the cause of religion, our attention may be so unsuspectingly, but completely, engrossed, that the great and important work of laboring in our own vineyards; of seeking after salvation in our own

hearts, may be overlooked and neglected. It is no matter by what bait the grand adversary succeeds. His purpose is fully accomplished, if mankind are but kept destitute of that knowledge which is life eternal.—*D. Wheeler.*

Of the inward direction and assistance of the Spirit of God to the soul, Matthew Hale writes thus:

"They who truly fear God, have a secret guidance from a higher wisdom than what is barely human, namely, the Spirit of truth and goodness; which does really, though secretly, prevent and direct them. Any man that sincerely and truly fears Almighty God, and calls and relies upon Him for his direction, has it as really as a son has the counsel and direction of his father: and, though the voice be not audible, nor discernible by sense, yet it is equally as real as if a man heard a voice, saying, 'This is the way walk in it.'"

"Though this secret direction of Almighty God is principally seen, in matters relating to the good of the soul; yet even in the concerns of this life, a good man fearing God, and begging his direction, will very often, if not at all times, find it. I can call my own experience to witness, that even in the temporal affairs of my whole life, I have never been disappointed of the best direction, when I have, in humility and sincerity, implored it."

"The observance of the secret admonition of this Spirit of God in the heart, is an effectual means to cleanse and sanctify us; and the more it is attended to, the more it will be conversant with our souls, for our instruction. In the midst of difficulties, it will be our counsellor; in the midst of temptations, it will be our strength, and grace sufficient for us; in the midst of troubles, it will be our light and our comforter."

"It is impossible for us to enjoy the influence of this good Spirit, till we are deeply sensible of our own emptiness and nothingness, and our minds are thereby brought down and laid in the dust. The Spirit of Christ is indeed a humbling spirit; the more we have of it, the more we shall be humbled: and it is a sign that either we have it not, or that it is yet overpowered by our corruptions, if our heart be still haughty."

"Attend, therefore, to the secret persuasions, and dissuasions of the Spirit of God, and beware of quenching or grieving it. This wind that blows where it lists, if shut out or resisted, may not breath upon us again, but leave us to be hardened in our sins. If observed and obeyed, it will, on all occasions, be our monitor and director. When we go out, it will lead us; when we sleep, it will keep us; and when we awake, it with talk with us."

Do not think thou art better than others, lest in the sight of God, who only knoweth what is in man, thou be found worse. Be not proud of that in which thou art supposed to excel, however honored or esteemed by men; for the judgment of God and the judgment of men are infinitely different; and that displeaseth him, which is commonly pleasing to them.—*A' Kempis.*

For Friends' Intelligencer.

VEGETABLE PHYSIOLOGY.

By Yardley Taylor.

(Continued from page 315.)

One of the best evidences of progress in this day, is the very general effort that is making by learned and scientific persons, to so explain the principles of science as to be understood by the generality of mankind. They are endeavoring to bring science within the comprehension of all, and to apply it to our every-day concerns. For instance, a lecturer in treating of the alkalis, will prepare his alkali and his oil, and go through the process of soap making before his audience. By mixing these two together in proper proportions, soap is the result; but if an acid is added, the alkali having a stronger affinity for that than for oil, unites with it and liberates the oil, which soon floats on the top, and may be separated. Here, then, we see that an acid will neutralize an alkali, and an alkali will neutralize an acid, and release each other from their compounds.

This leads us to inquire into cause and effect, to investigate the laws of matter and to perceive their tendency. The more we look into these laws, the more we shall be satisfied that they are permanent and abiding in their character; and are always to be relied on. The agriculturist, for instance, knows, when he commits his seed to the earth, and complies with the necessary conditions, what to expect. He knows that the moisture in the soil will cause the seed to swell, the embryo to enlarge and to elevate the plumule above the surface of the ground, at the same time that roots are emitted in search of nourishment for sustaining the young plant. He knows, too, that this enlargement and growth, will be in proportion to the conditions presented to the young plant, and that if he wishes to receive a large increase, he must prepare the soil properly, and apply the proper manures. All these things require examination and investigation, before we can be made acquainted with the best means of attaining our object. Place an individual, who had not been made acquainted with his duty, in a situation to direct these operations, and he would be as likely to do wrong as right. Individuals who have not had experience in the matter, have seriously injured their crops, by applying too much strong manure, when a more moderate portion would have been beneficial. There are those who assert, and they give evidence in support of it, that by a proper preparation of soil by under-drainage and subsoiling, they dis-

regard dry weather. They say that in abundance of rain, the soil thus prepared, passes it away without injurious effect, while in drouth the depth in which roots penetrate in well loosened soil, will always retain moisture sufficient to cause a good growth in the dryest weather. A very deeply stirred and well drained soil will retain vastly more water without its being in excess, than a shallow stirred soil can, and consequently will be much longer in becoming injuriously dry. We know but little what may yet be done to mitigate drouths by a proper preparation of soil, and as the laws of nature are regular and certain in their operation, we may with certainty calculate the result.

Like the astronomer of the present day, by making himself acquainted with the laws and motions of planets, he can predict with certainty the occurrence of eclipses for hundreds or thousands of years to come, so the horticulturist or agriculturist, who understands the wants of a plant, as to its requirements of soil, of heat and of moisture, can adapt those circumstances to suit its growth. Tropical fruits and plants are now successfully grown in cold latitudes, and in some cases equal, if not superior to their original climate. There are but few climates but what are affected by variations of temperature somewhat injuriously to its plants at times, while in a conservatory, the temperature and moisture is at our command. In tropical mountainous regions there are some kinds of plants that succeed best at their base or in the warmest zone, while others do only on a more elevated region, where the temperature is less, while others again grow only on their higher valleys or mountains. It is not the least important duty of the horticulturist and florist to adapt the circumstances of light, heat and moisture to the requirements of the plants and flowers he cultivates; to those from dry tropical climates, he must withhold water so as to imitate its natural habit as near as may be, while to marsh-growing plants, he must practice the opposite extreme. To those that do best in shady situations, he must give shade, if he wishes to bring out their beauties to their full extent. The same treatment to all would be fatal to some.

But I have digressed. Instead of an article on vegetable physiology, I have been treating of principles in agriculture and horticulture. They are, however, so connected in practice that they can hardly be studied separately to advantage. The conditions of the soil and of temperature are so important in the growth and development of the plant, that practically it is well to study them somewhat together. Abstractly, it is of but little use to make ourselves acquainted with the principles of any branch of science, if these principles are not expected to be brought into use in our future business. While the knowledge of science generally has the effect of enlarging the mind, and making it the more readily adapt itself to circumstances, and enabling it to use this knowledge to advantage; yet considering the vast amount of knowledge now attainable, and the limited time for its acquisition, it becomes a matter of great importance to those who have direction of the studies of youth, so to direct those studies as to make them the most profitable in after life. Much time is sometimes spent in education, in acquiring a knowledge of some branches that are popularly considered essential, which are of little or no real value afterwards; and in fact have been in the way of that acquisition that would have been more congenial to the student at the time, and of far more value in future life.

The object of these essays, however, have been to induce the young readers of the Intelligencer, to notice the circumstances around them, to observe the operations of nature, and to examine into her laws and to treasure up this knowledge.

Few of them are so situated that they cannot observe the growth of vegetables. Even in the most populous parts of large cities, there is usually a little yard and border, where plants may be grown and cared for. Should this be denied, however, pot plants may be placed in a window, or some place where they can have the benefit of light and air. Even here the germination of the seed and the starting of the embryo may be observed, the putting forth of the leaves and growth of the plants may be watched, until the flowers put forth in their beauty, and finally the seed is perfected. This is in miniature what takes place in the field of the farmer and garden of the horticulturist. The laws of plant-growth are the same in both cases. Congenial circumstances bring forth fruit in all plant-growth, while uncongenial ones retard it. Excessive wet or drouth are both injurious, while insects may cut down and destroy a plant in a short time. Here is exercise for the intellect in providing by foresight for contingencies, and in case of failure, to ascertain the cause and guard against it in future.

In the country, the young have ample opportunities to notice the difference in form and growth of vegetables and trees, and even in cities this advantage, though circumscribed, is still available. The different varieties of shade and ornamental trees and plants, in streets and in ornamented grounds, give room for exercise in this interesting study. The difference in the form and position of leaves, their being more or less lobed or notched, their smooth or serrated edges, and the difference between the upper and lower sides, are all interesting matters for study. Those who have opportunities to make examination with the microscope, will have many interesting facts brought into notice, that without such aid could not be so fully observed. The

more minutely and the more closely the works of nature are examined, the more perfect and beautiful her works appear. If a finely polished needle is placed under a glass of high magnifying power, it looks rough and the point appears dull, while the sting of a bee or wasp would look highly polished, and the point so fine as to be hardly discernable even then.

I trust that some of my young readers, at least, will be induced to examine into the operations of nature around them, that they will consider nothing too small or minute to be worthy of consideration, for the large is only an aggregation of the small, and the most extensive, of the minute. The vegetable kingdom stands between the mineral and the animal, dependant on the former and supporting the latter. In the ordering of Divine goodness, it fills an important space in the Divine economy; without it, man and all the animal creation could not exist. Surely it is worthy of our attention, and should these essays induce any one to look more into the laws of nature, and thus learn the wisdom and goodness of their Great Designer, and thereby be enabled to exalt the intellectual nature of man, and thus govern the animal propensities, by keeping them in their proper sphere and place, the writer will be amply rewarded. And now he proposes to take leave of his young readers at least for a time.

FRIENDS' INTELLIGENCER.

PHILADELPHIA, EIGHTH MO. 4, 1860.

Although we published some account of the meetings alluded to in the following communication, yet as it embraces some others than those belonging to Radnor Monthly Meeting, we give it place, hoping it may be an encouragement to others to pursue a course that we believe may tend to the spread of our principles and testimonies. ED.

It is known to many of the readers of the Intelligencer, within the limits of Philadelphia Quarterly Meeting, that meetings for worship have been held in the afternoons of the third First-day in the month, alternately, at the different meetings composing Radnor Monthly Meeting.

On First-day the 15th inst., the appointment was at Schuylkill.

It has become the practice of those having the oversight of these meetings, to visit on the morning of the same day, some of the adjacent smaller assemblages for public worship.

On the day alluded to, notice having been given in the neighborhood, the writer of this, with a friend, attended at the ancient Meeting House at Upper Providence, Montgomery county, This property is held by the original deed from William Penn, dated 1730.

There are but few members of our religious Society, residing in its vicinity, but the people take an interest in attending their meetings, when they think it likely they will hear preaching. The small house was pretty well filled with an intelligent and attentive audience. At the conclusion, many expressed themselves satisfied with the views given, and one person remarked, that they liked the plain talk of the Friends. We were gladly received and entertained with much kindness. I believe there is an openness in the minds of those not of our Society to receive the truths of practical righteousness, as held by Friends, free from speculation of any kind.

The harvest truly is great, but the laborers are few.

These few lines are penned with the hope that they may stir up the pure mind in some to enter into the field and labor. W.

Phtladelphia, 7th mo., 1860.

DIED, On the 21st inst., ANNIE J. infant daughter of Anthony C. and Hannah W. Michener, aged nine weeks and three days.

——, At his residence, in Chatham, Dutchess Co., N. Y., on the 28th of Third month last, ISAAC SMITH, in the 71st year of his age, a member of Creek Monthly Meeting.

THE RECENT ECLIPSE.

Was observed by Caleb S. Hallowell, of the Alexandria High School, with means much superior to those possessed by the great majority of spectators—not to say observers—who notice these phenomena. The following report, made by him to the Alexandria *Gazette*, will be read with interest, as giving a good account of the peculiarities of this eclipse when seen through a telescope of respectable power:—

"At the commencement of the eclipse the thermometer, in the shade, stood at 71 degs.; at the moment of greatest obscuration it marked 72 degs., and at the close it indicated a temperature of 78 degs. Gunpowder, placed in the focus of a large lens, was found, on an average of numerous trials, to flash in 3½ seconds during the time of greatest obscuration, and to require but 2½ seconds at the end of the eclipse.

Owing to the prevailing mist the peculiar effect of the sun's light upon the insterstices of

the leaves of trees was far less noticeable than is usual in solar eclipses. This effect, however, was readily shown, on a limited scale, by crossing the fingers of one hand over those of the other, to form six or eight small openings, like the meshes of a net; then permitting the light to pass through, and receiving it upon a screen at about two yards distant. A common burning glass also gave a bright representation of the eclipse at the moment of greatest obscuration.

During the observations as many as seven groups of spots upon the sun's surface were seen and examined by the telescope, of which three were large and *one* peculiarly fine. Indeed, this last is scarcely inferior either in size or varied beauty to any spot that has fallen under our observation here for many years. It was covered by the moon during the progress of the eclipse.

In close proximity to the moon and just before she passed off the sun's disc three fine *faculæ* displayed themselves close to his concave edge, and parallel with it, and with each other. These faculæ or streaks are, in some respects, as interesting as the spots themselves, being believed to be gigantic waves traversing the surface of the sun.

A *total* eclipse of the sun occurring on a clear day, must be without doubt the most impressive spectacle that can be presented to the human eye; and among those who have had the rare fortune to witness this phenomenon we find even the most intelligent have confessed to a certain feeling of awe during the period of entire darkness. The present eclipse was total in the northern parts of America, in Spain, and in the north of Africa. There will be one next year visible only in the Atlantic ocean and the desert of Sahara.

The last total eclipse of the century will occur May 29th, 1900. This eclipse was projected and registered in our book in the year 1848, by John J. Clarke, then of Richmond, Virginia; it will be nearly total in Alexandria. The next fine eclipse of the sun visible here will occur in 1865; it was calculated and beautifully projected during the present year, by Student Edward J. Farquhar, of Maryland. He tells us it will be central and annular in Kentucky and Tennessee, and it will doubtless there prove a splendid spectacle. Here it will reach 9·7 digits. The last annular eclipse visible to us was in 1838, and I consider it to have been one of the most beautiful astronomical phenomena it was ever my good fortune to behold."

WELLS.

"It is well known," remarks a London contemporary, "that carbonic acid often accumulates in large quantities at the bottom of wells, and that its presence may be ascertained by letting down a lighted candle, which will go out as soon as the flame comes into contact with the gas. Many men have lost their lives from descending into wells in this state. M. Sylvestre has discovered an easy way of absorbing this fatal gas. He pours lime-water (water in which lime has been slaked,) gradually into the well, allowing it to trickle down the sides; and then throws down some five or six pounds of quicklime in lumps. By the next day the carbonic acid gas is all absorbed, and the well is safe."

Such as give themselves the latitude of saying what they do not mean, come to be arrant jockeys at more things than one: but in religion and politics it is pernicious.—*Penn.*

RATS.

Some dozen years since an English author proved that a pair of rats, when undisturbed, may produce in three years thirteen families of young, each eight in number; that the young ones when six weeks of age have attained their "years of discretion," "marry and are given in marriage," in turn breed up new families of rats, and thus at the end of the third year the original pair become the Abraham and Sarah of a race already amounting to 658,808 individual rats. Now, as ten rats require as much food as one human being, it requires no great stretch of the imagination to form an idea of the loss which an unhindered multiplication of the rat gentry would entail upon a community.

Luckily, the propagation of these vermin depends in great measure upon the supply of food at their command; and when this fails, they entertain no conscientious scruples upon the matter of eating one another—a cannibalism which we find to be highly praiseworthy.

The rat is a neat and cleanly animal. True, they inhabit places which to our noses offer anything but odors sweet; but that is not their fault—it is their misfortune. Nor are they subjected to it from their folly, as exhibited in the election of knaves, fools and swindlers to high places of trust and power. If condemned by misfortune to dwell in uncleanly places, they only take so much the more pains to secure personal cleanliness by constant washing and purifying, after the manner of their enemy, the cat; but, *fas est doceri, &c.*

Rat skins have of late years been found very valuable for the manufacture of ladies' finest *kid* gloves, and this fact has led to the formation of a company by the Sewer Inspectors of Paris, similar in plan, though somewhat less extensive in its operations, to the Hudson Bay or the American Fur Company. An annual slaughter of the innocents takes place in the subterranean City of Paris, and the span of the rat's life is shortened by a (for them) worse than Span-ish Inquisition. No animal possesses a finer and glossier fur than the rat. It furnishes the very best article for

the manufacture of nice Parisian *beaver* hats, and the skin, in all the qualities which adapt it for gloves, far surpasses the best kid. For the extra fine or extra priced beaver, we are indebted to the sewers of Paris.

Few races have a more venerable and warlike history than the rats. Their chronicles extend back with those of mankind, embracing emigrations and immigrations, the driving out of old nationalities, and the founding of new wars and rumors of wars, usurpations, tyrannies and almost whatsoever else forms the staple and basis of man's ancient history. Wherever man has gone, there have gone with him (*arcades ambo?*) the rats. They came with him from the Orient; they followed the Hun, the Goth, the Vandal. The stronger destroyed the weaker race or drove it before its conquering march. At the present time a change of this sort is going on in the sewers of Paris. The common brown or Norway rat has been possessor for many long years of that subterranean kingdom, but now the stronger Russian or Tartar race has found its way thither, and destructive war is waging. The Tartar rat is a native of Central Asia, and followed the Mongolian race in its movement "Westward Ho."

In London, on the other hand, the brown species gets the upper hand of the black, which has been considered, on the whole, as being metropolitan—as the country sends its young men to the city to become in another generation the moving power, to the exclusion of "old families." Scholars are divided upon the point when William the Conqueror, of the black rats, entered Albion. An English edition of Cuvier states that the animal was a native of Persia, and that he left that country after the great earthquake of 1727, swam the Volga near Astrachan, and moved west with the "course of empire." Another authority decides that the black rat came to England in the ship which brought the Elector of Hanover over to assume the English crown

As the Saxons did not succeed in clearing the British isles of the Celt—that great progenitor of *white* Americans, according to certain ethnological philosophers—so here and there the black rat of England makes good its defence against its invaders. In union is strength. The weaker race feels this, and, adopting our motto, "*E pluribus unum*," where they exist in sufficient numbers, they join to the rescue and remain victors. In England long ago the natural history of rats became a favorite subject of speculation and observation, and numberless are the experiments that have been tried upon them. Through such experiments Science has received many a valuable contribution—among them, this: that if you shut up in a box an equal number of black and brown rats over night, the black ones disappear in proportion to the lack of food supplied them; and that, though fully supplied with food, the Norway browns gnaw off the ears of their black enemies, as a dainty tid-bit.

Rats are great travelers. They spread themselves over all climes and countries. Old vessels become crowded with them. It is no very uncommon occurrence for the rat catchers of Calcutta to take 500 from an old East Indiaman. Could the adventures of some individuals be recorded, or rather translated from the rat-tongue, we might have accounts of more circumnavigations than were ever performed by any one man. The real ship rat is a neater animal in appearance than the brown Norwegian, having the fine ears, the tapering nose, long tail and dark fur of the English rat. In some vessels, however, a colony of each will exist, distinct and separate, one holding the bow, the other the stern.

During long voyages they are apt to suffer. So long as there is freight on board they can obtain a plentiful supply of food, but their sufferings from the want of water are often intense. When cut off from a supply they will ascend the rigging during storms and drink of the water collected in the folds of the sails, and they have been known to gnaw into spirit casks, and drink more than their heads could well bear. They have fine ears for the sound of running water, and cut through lead pipes to get at it.

The cable, when a ship is at anchor near the land or lying in dock, forms a bridge which the rats use in leaving or entering a vessel, so far as it extends, and when not reaching to the land, they leap from it and accomplish the rest of the distance by swimming. A besom around the cable, with its sharp points forms an effectual *cheveaux de frise* against them.

In London, the abundance and character of the rat population has led to great efforts for their destruction. The best means upon the whole yet found is to suddenly close the sewers and allow them to fill with water. When again opened, the foul water shoots out into the Thames, bearing the dead bodies of the drowned rats by hundreds with it. Still, the only effectual means of reducing in any perceptible degree their number, is the having made ratskins an article of commerce; but now when these are worth some seven or eight cents apiece, the rats in all their generations seem to have no place whither they can look for hope. The sewers have become hunting-grounds, and are divided into districts by the rat-catchers. The hunters adopt sometimes the plan of grand hunts in the olden times for prey of larger size, "by starting from many points and gradually driving the animals to some central spot," whence is no escape. The rat-catchers go in couples, each with a candle and reflector of bright tin, a sack, a sieve and a spade—the last two implements for the purpose of examining the deposits, in search for valuable articles which may have found their way thither. As soon as

the rats see the lights approaching, away they run along the sides of the sewer, just above the water line, and their pursuers after them. As soon as the rat sees that it must be overtaken it begins to squeal, and hardly has time to utter its cry before it is caught behind the ears and thrown into the sack. Sometimes a dozen in as many minutes are taken. When driven into a sewer where all outlet is cut off, they occasionally turn upon their enemies and attack their boots with great desperation.

Works in which the natural history of the rat is given supply many anecdotes which show the great sagacity and benevolence, to his own species, of this animal. For instance, a large train of rats, moving through a field was noticed, in the midst of which a blind rat was seen with a stick in his mouth by which two others led him. Their method of getting olive oil from a flask is an old story—one thrusting his tail down and offering to the tongues of his companions, and afterward being fed in turn in the same manner. A farmer in Massachusetts saw a rat in his barn inclose an egg with his limbs, and thus form a dray by which others conveyed the egg to their hole. The writer in *The Quarterly Review* saw a rat overturn a basket of figs upon a table, and immediately a number of his companions sprang to the fallen mound. Rats gnaw ivory, but only those parts of a tusk which contain much animal oil. In this way tooth-marks become indications of the best portion of the ivory for billiard balls, and other things requiring great elasticity.

The rat, being accustomed to feed upon all sorts of garbage, poisons its teeth, and wounds inflicted by them are in a high degree dangerous. The rat's most dangerous enemy is the ferret. Jesse, unable to account for the destruction of rats by so slow-moving an animal in comparison, shut up a rat and a ferret in a small room with one window. The rat examined his quarters with a skillful eye, and chose his station beneath the window, so as to throw the sun into his opponent's eyes. This gave him an opportunity to watch clearly the advance of the enemy, whose eyes were blinded by the light. Every time the ferret came near, the rat leaped forward and seized him by the neck, finally coming off victor in the contest.

The smell of a dead rat is one of the most nauseous and most difficult to eradicate to which our dwellings are often subjected.

A rat carcass, in a room adjoining THE TRIBUNE Office, for some time sent forth an almost unbearable effluvia, and for weeks after the cause of offence was discovered and removed, in spite of chloride of lime, the scent was in the highest degree disgusting and sickening.

In one of the large private hotels of Paris, the scent from some unknown cause was so strong and disagreeable as finally to lead to the removal of the sewers and water-closets to another part of the edifice, at a very great expense. Still the trouble was not removed, and finally the cause was found to be the carcass of a single rat, who had been strangled by the bell-wire. In an article in Bentley's Miscellany, the adaptation by nature of the rat's teeth to his mode of life is particularly mentioned. It appears that the cutting teeth are of twofold substance, the outside being much harder than the inner. The result is that the inside wears away and leaves the tooth at all times sharp. The teeth grow rapidly, but when one is lost no other appears. Consequently, not being worn off by use, the opposite tooth grows out to great length, sometimes penetrating upward to the brain or becoming bent, or growing round in to a circle. Sir John Banks placed a rat's skull in a London Museum, in which is a tooth forming one entire circle and part of another, so large that a man's thumb can enter as into a ring.

The common rat which runs about over wharves have all come originally from Europe, and the black rat has only within a comparatively recent period made its way from the seaboard to the cities and towns of the country.

SCENES IN THE SANDWICH ISLANDS—ANOTHER VOLCANO AT WORK.

A correspondent of the *Alta California* gives the following incidents of a visit to the volcano Kilauea—not the celebrated Mauna Loa—in the Sandwich Islands, thirty-six miles from Hilo:—

Kilauea is unlike any other crater, an anomaly in nature. It is a vast pit in the midst of a plain—one of nature's great safety-valves. It is elevated only 4500 feet above the level of the sea, and in approaching it the ascent is so gradual as to be imperceptible.

So great was our anxiety to descend into the crater that the hours of darkness seemed unusually long. Frequently we would get up from our bed of fern leaves, and peering through the darkness from our doorless huts, watch the red fountains of fire bursting up from the chasm below and breaking in chains of light. A great lurid mass of cloud hung perpetually over the fiery lake. The wind, blowing literally through the crater, howled and shrieked in an unearthly manner. Above the voice of the midnight blast could be heard occasional explosions and distant rumbling sounds like those we heard on Mauna Loa, while, during intervals of cessation, the surging and splashing of the furious waves in the ever-troubled lake could be distinctly heard. Daylight came at last A cold, rainy, cheerless day dawned upon us. But this could not damp our ardor. After a good breakfast away we started—all hands—leaving our hut and contents to take care of themselves. Descending the precipitous sides, on the southern side of the crater, great caution must be exercised. Reaching the floor, we found it composed of swelling masses of

black, brittle lava, of a comparatively recent formation. We walked over this, taking the precaution to carry a goodsized stick with which to test the thickness of the crust. Here and there we met with huge masses of solid rock, many of them weighing more than a hundred tons, which had evidently been thrown from the crater.

Within a quarter of a mile of the burning lake is the entrance to a great cave, which my guide says is probably a mile long. We entered through a very narrow aperture, around which lay loose heaps of fire-scarred stones. Lighting our candles, we pressed on, exploring this direction and that, until we had gone perhaps half a mile, and yet we did not find the end of this remarkable cave. In some places it is narrow, and in others widens out into vast chambers. In some places we had to crawl where the roof was only two or three feet high, and in other places the roof would be ten or twenty feet above our heads. Hanging from this roof we found some choice specimens of fine black metallic lava in the shape of stalactites, while stalagmites of the same material were found on the floor. After being in that dreary chamber three hours we emerged into daylight just as our candles were used up.

Suddenly we came to a high bank, and looking down we beheld the lake of fire beneath us, about seventy-five feet. This lake is something more that a mile in circumference. There, in full view, were real waves of liquid fire, of a bright red color, spluttering and splashing like ocean waves. A little island of hard lava stands in the middle of the lake, against the black sides of which the waves of fire dashed with tremendous fury, and, breaking on its jagged cliffs, they would cast their red spray high into the air. The sides of the lake were solid walls of red fire, glowing with fearful intensity. We were standing on the windward bank, with a strong cold wind blowing down, yet the heat was so intense, that we could only look a minute at a time, and then turn away to catch the refreshing influence of the cool breeze. In addition to the hideous roaring and hissing of the lake, we heard, at short intervals, sounds much resembling that of a steamer blowing off steam, only infinitely louder, and ominous growlings of pent-up forces struggling in subterranean caverns, at which the very earth seemed to tremble. Occasionally large masses of the cooled lava, on the edge of the lake, became detached, and, falling into the boiling cauldron, are instantly reduced to a liquid state.

After a few minutes' silence, disturbed only by an occasional hissing and murmuring, I was soon startled by that awe-inspiring sound of escaping stream. In an instant a faint glimmering of red, like a sheet of lightning, shot out from under the overhanging brink where I was standing, and ran across the lake. This was the signal for a change in the whole programme. Immediately the whole lake became of a bright red color, and four fountains burst up in different parts of the lake. My eyes followed these with amazement, as one after another they cast up great quantities of a pure vermillion-colored liquid. These were followed by two others in rapid succession, one of which burst up near where I was standing. Running back I cowered under the upper banks, and witnessed the grandest pyrotechnical display of which it is possible to form any conception. These six fountains threw up jets from thirty to fifty feet high. The fountain from the spray of which I so hastily retreated made large deposits of molten lava on the bank where I had been standing, and when it ceased I procured some very good specimens. This red liquid matter, when cool, is a solid, brilliant black substance, much resembling pitch. After this sublime display, a short period of inactivity ensued, as before, and then the waves of fire commenced to roll and dash against the little island as when we first saw it. A continual boiling, bubbling, and spluttering is kept up around the edges of this mighty cauldron, precisely like the boiling of a pot. This crater has probably been in action, more or less, from time immemorial. Native tradition says that it has probably been burning from the time of chaos until now.

Every day, for three days, we spent several hours sitting upon the bank, and watching all the varied changes and wonderful movements of this lake. Changes are taking place continually. The lower banks are growing and decreasing continually. The work of demolition and reconstruction is always going on. The most wonderful and (to us) mysterious phenomenon we witnessed was on the second day of our visit to the crater. It was noon, and we were sitting on a high bank at lunch. I had turned my face in the direction of the wind to avoid the intense heat of the lake. I was startled by a noise like the rushing together of vast bodies of water. The natives jumped up instantly, and raising an unearthly shout scampered off in an opposite direction. Turning toward the lake I beheld a scene which I shall never forget. I, too, had to run off some distance to escape the great heat. The whole surface of the lake was in a state of the wildest commotion. Wave clashed on wave, and all was confusion. Tremendous billows of fire rolled from every side of the lake, and meeting in fierce conflict around the island in the centre, broke with fury over its black sides. Then, after receding again, they rushed to the onset once more with increased force, and meeting together, shot up in the air, perhaps one hundred feet, one vast spiral body of red liquid lava, which finally combed over and fell in graceful spray back into the lake again! When things

had been restored to their usual order, the surface of the lake seemed to have fallen at least ten feet.

THE RIVER PATH.

By John G. Whittier.

No bird-song floated down the hill,
The tangled bank below was still;
No rustle from the birchen stem,
No ripple from the water's hem.

The dusk of twilight round us grew,
We felt the falling of the dew;
For, from us, ere the day was done,
The wooded hills shut out the sun.

But on the river's farther side
We saw the hill-tops glorified—
A tender glow, exceeding fair,
A dream of day without its glare.

With us the damp, the chill, the gloom;
With them the sunset's rosy bloom;
While dark through willowy vistas seen,
The river rolled in shade between.

From out the darkness where we trod
We gazed upon those hills of God.
Whose light seemed not of moon or sun.
We spake not, but our thought was one.

We paused, as if from that bright shore
Beckoned our dear ones gone before;
And stilled our beating hearts to hear
The voices lost to mortal ear!

Sudden our pathway turned from night;
The hills swung open to the light;
Through their green gates the sunshine showed,
A long, slant splendor downward flowed,

Down glade and glen and bank it rolled:
It bridged the shaded stream with gold;
And, borne, on piers of mist, allied
The shadowy with the sunlit side!

"So," prayed we, "when our feet draw near,
The river, dark with mortal fear,
And the night cometh, chill with dew,
Oh, Father!—let thy light break through!

So let the hills of doubt divide,
So bridge with faith the sunless tide!
So let the eyes that fail on earth
On thy eternal hills look forth;
And in thy beckoning angels know
The dear ones whom we loved below!"

Independent.

TOIL, LOVE AND TRUST.

BY SARAH FAUSETT.

Toil! though your soul has grown weary,
Though the way is darksome and long;
Live in the great world nobly,
With a spirit true and strong;
Dreaming of life is not living,
But toil with a smile and a song!

Toil, though the strife may seem fruitless,
It will not, at last, be in vain;
An Eye above you is noting
The weary toil and the pain;
The struggle will soon be over—
Your soul may the victory gain!

Love! though your heart has been darkened
And crushed by a withering blight;
Though your love has been scorned and down-trodden,
Lock not your spirit in night—
Walk not alone in the shadow—
Open your heart to the light!

Love! there is bliss in loving;
There are souls who faint by the way;
There are weary hearts to be strengthened—
Gladden them while you may:
Your soul will grow purer and stronger,
And rise to the light of day!

Trust! though your trust has been broken,
Though your faith has been guarded by none;
Faint not, and doubt not, oh, spirit!
The life-work will soon be done;
The day is coming in glory,
Trust, till the goal is won!

Trust, when strife is around you,
When your idols are crumbling to dust,
All you doubt will be known in the future,
For the Father is loving and just;
Then look up to the Heaven above you,
Toil nobly, and love, and trust!

COTTON SPINNING.

(Continued from page 319.)

To the close of his life Mr. Crompton was regarded with much interest in his town and neighborhood. He was visited by many foreigners, some of whom tempted him by attractive offers to carry his mechanical ingenuity into foreign service, but even in his most desponding moods, when conceiving himself to be neglected by his own country, these proposals failed to move him. Once, when Mr. Bramah, the greatest mechanical genius of his day, was in Bolton on business, about the year 1817, the Messrs. Ainsworth offered to show him any thing in their neighborhood that he might desire to see, on which he observed, "There is nothing in Lancashire that I care to see but Mr. Crompton: I should like to visit *him*." Mr. Bazley, now M. P. for Manchester, then a clerk at the desk, acted as guide, and a short interview took place between the two inventors. Crompton was usually very shy of strangers. On one occasion Mr. Kennedy of Manchester carried a foreign count to his house, when Crompton took refuge in his bed. He was suspicious of the neighbors who came about him, and feared that their purpose was to steal his ideas. The morbid state of his mind is shown by the following passage in one of his letters: "I am hunted and watched with as much never-ceasing care as if I was the most notorious villain that ever disgraced the human form; and I do affirm that if I were to go to a smithy to get a common nail made, if opportunity afforded to the bystanders, they would examine it most minutely to see if it was any thing *but* a nail." When he attended the Manchester market to sell his yarns, if any rough-and-ready manufacturer offered less than the price he asked, Crompton would wrap up his samples, put them into his pocket, and walk away. On other occasions he would return home without even at-

tempting to transact business, because he observed himself to be pointed out to strangers as a remarkable man. When at Glasgow collecting information as to the extent to which his mule had been adopted, the spinners and manufacturers paid him every attention, and desired to receive him at a complimentary dinner, but "rather than *face up*," he said, "I first hid myself, and then fairly bolted from the city." Like James Watt, he was often in a mood to "curse his inventions," which he thought had brought him only sorrow. This extreme sensitiveness seems to have amounted to a disease, assuming the form of belief in spiritual appearances—an indication of a thoroughly unsound state of mental as well as bodily health. But "the creaking gate hangs long on its hinges," and Samuel Crompton, though his life had been full of sorrow and disappointment, survived until the year 1827, when he died at the age of seventy-four. Mr. French says truly—

"The life of Samuel Crompton presents a subject for serious reflection by working men. Holding up much for their encouragement, there is also in it much of warning, as it demonstrates that natural ability of the highest order, even when supported by education, industry, sobriety, and frugality, does not exonerate any man from the duty of acquiring a knowledge of his fellowmen, and of learning how to deal with them in the business of life. His practical disregard of this knowledge was the stumbling-block that impeded every action of Samuel Crompton's life. Had he studied human nature with one tithe of the persevering skill and energy with which he devoted himself to his mechanical pursuits, his name would have ranked now among the highest in the nation, and his posterity among the wealthiest of its commercial aristocracy."

The inventions of Paul, Highs, Hargreaves, Arkwright and Crompton, were none of them complete; they were but so many steps in advance, and the ingenuity of the next generation took up the work at the point at which their predecessors had left it, and carried it steadily onward. This continuous improvement was powerfully stimulated by the demand for English manufactures which set in from all parts of the world. Not only did production rapidly increase, but the quality of the articles produced was improved, whilst prices were greatly lowered. If it be true that the bent of civilization is to make things cheap, and that the power of a nation depends in a great measure upon the usefulness and the multitude of its productions, then our inventors have proved themselves amongst the most effective of civilizers. Crompton's mule itself underwent great improvements in detail, but he would not admit that any fresh principle had been discovered. When an old man one day went over the large cotton factory of Mr. Ashworth at Tourton, near Bolton, and, pointing to a mule containing several hundred spindles, he said, "I do not find a single principle there that did not exist in my first Hall-i'-th'-Wood wheel;" though by the adoption of superior mechanism his original ideas had become so metamorphosed that at first sight he scarcely recognized them. Every part of the mule had been rendered more perfect in finish, in form, and in adaptation, so that the machine could be driven at a greatly increased speed. The facilities of manufacturing had thus been so greatly multiplied, and the cost so much reduced, that the yarns which Crompton sold for two guineas a pound could now be bought for about two shillings. The raw material could with difficulty be supplied in sufficient quantity. At one time, in the year 1801, the entire stock of American cotton in Liverpool had become reduced to *one bag!* The production of yarn, moreover, outran the means which existed in the country for working it up, and it began to be exported in large quantities to foreign countries where labor was much cheaper than at home. The consequence was, that cotton fabrics of various kinds, woven by foreign artisans out of English made yarn, were re-imported in large quantities into England; and it was even feared that the foreign weavers would before long drive the English weavers entirely out of the market. To work up the yarn, therefore, by English machinery became the next great problem to be solved, or the English manufacturers must have bid farewell to an important department of their foreign trade.

This subject was at an early period brought under the notice of the Rev. Dr. Cartwright when residing with his family at Buxton. Some Manchester gentlemen were discussing at a public table, in the year 1784, the probable results of Arkwright's new spinning process. One gentleman pointed out the possible evil that it might occasion, not only to the cottagers, many of whom obtained the principal part of their subsistence by the use of the hand-wheel, but also to the small farmers, who had been enabled during the winter months to eke out their living by means of the hand-loom. It was asked, since machinery had succeeded so wonderfully when applied to spinning, why should it not equally be applied to weaving? This suggestion made such an impression on the mind of Dr. Cartwright that he could think of nothing else. Arrived at his home in Nottingham, he put his turning-lathe in order, and, with the assistance of a mechanic named Joseph Taylor, after long study and many failures, he at length completed the invention of his power-loom. He spent a fortune of about £30,000 in fruitless attempts to apply it to practice, for which he was partly compensated by a public grant of £10,000 paid to him several years after his patent right had expired. It must, however, be confessed that Cartwright's loom proved of little service, and

was of value principally as a starting-point for other inventors. Dr. Jeffray, Professor of Anatomy at Glasgow, was scarcely more successful in his invention, which was brought out in the same year (1787) as that of Cartwright. It was not until the machine had been taken in hand by actual mechanics and weavers that any satisfactory progress was made. Considerable improvements were effected by Mr. Miller, of Milton Printfield, near Glasgow, and by Mr. Horrocks, of Stockport: but it must be admitted that the essential changes in the loom which led to its successful adoption are involved in great obscurity. The names of many clever mechanics who contributed to advance it, step by step through failure and disappointment, have long been forgotten. Some broke their hearts over their projects when apparently on the eve of success. No one was more indefatigable in his endeavors to overcome the difficulties of the contrivance than William Radcliffe, a manufacturer at Mellor, near Manchester, whose invention of the dressing-machine was an important step in advance. With the assistance of an ingenious young weaver in his employment, named Johnson, he also brought out the dandy-loom, which effects almost all that can be done for the hand-loom as to motion. Radcliffe was not, however, successful as a manufacturer; he exhausted his means in experiments, of which his contemporaries or successors were to derive the benefit; and, after expending immense labor and a considerable fortune in his improvements, he died in poverty at Manchester only a few years ago. The adoption of steam-heated cylinders (the plan of some unknown inventor) for drying the yarn after dressing—of the sizing apparatus, devised by Mr. Holrod, of Colne—and various improvements successively effected by Mr. Horrocks and Mr. Marsland (Stockport) and other persons—gradually brought the system of power-loom weaving to an extraordinary state of efficiency. England, instead of importing, was shortly enabled not only to export large quantities of fabrics woven by English power-looms, but at the same time to increase enormously its exports of all descriptions of yarn. Thus, for the year ending the 31st December, 1858, the exports of calicoes, cambrics, muslins, and other descriptions of manufactured cottons, were of the declared value of £33,421,843, and of cotton twist and yarn £9,579,479 sterling; the same preponderance being maintained in the proportions of linen and woollen fabrics exported, as compared with linen and woollen yarns.

When steam-looms were introduced, a further impulse was given to power-loom weaving. The early manufactories were greatly enlarged, or abandoned altogether, and in their stead large buildings were erected, better lighted and ventilated, and in all respects more comfortable and healthy for those employed in them. Cleanliness was attended to, iron was introduced into the machinery instead of wood, more open spaces were obtained, machinery was "boxed off," and the risk of accidents reduced to a minimum. Various improvements were adopted for cleaning the cotton, such as the "willow" and the "scutcher," by which it is contrived that every particle of dust is blown out of the mill by a special shaft. Mechanical invention has never been allowed to stand still. The lower rates of wages which prevail upon the Continent, together with the much longer hours of labor of foreign factory workers, are advantages which the English manufacturers are only enabled to overcome by the superior excellence and speed of their machinery; for if they cease to be first in all these respects, they must inevitably fall behind in the race. Thus stimulated, the enterprising manufacturers of the north have been prompt to adopt every invention calculated to improve and accelerate production; and in this they have been admirably supported by the skill of our artisans and the perfection of our tools, which enable machines of every kind to be multiplied with marvellous precision and rapidity. England may now be regarded as the very workshop of the world; engines, tools, and machinery being themselves among its staple manufactures. The rapidity with which productive power is manufactured in Lancashire may be inferred from this single fact, that the Messrs. Platt, Brothers, of Oldham, alone turn out about five hundred thousand mule spindles yearly, which are partly sold to spinners in England, and partly exported to foreign countries. Indeed, the manufacturing of machines has become almost as important a branch of trade in such towns as Manchester and Leeds, as the manufacture of cotton and woollen themselves. Thus in September, 1858, there were in Manchester and Salford not fewer than one hundred and three machine-making establishments at work—the number of cotton-mills at the same time being one hundred and sixteen. The same rapid growth of the machine-making business has taken place at Glasgow and other manufacturing towns; and it is becoming increasingly apparent that the ingenuity of our inventors, combined with the skill and energy of our mechanics, afford the best guarantee, as they are the most solid foundation, of our commercial supremacy.

(To be concluded.)

ITEMS OF NEWS.

The Lake Superior Trade.—The eleven steamers now in the Lake Superior trade have all they can do to accommodate the increasing traffic between the Lake Erie ports and those on Lake Superior. Last year it was estimated that the freight passing through the Sault St. Marie canal, amounted in value to eight and a quarter millions of dollars; and this year it is thought that it will reach eleven or twelve millions.

The Zoological Gardens.—The Zoological Society of London have just received an important addition to their menagerie, in the shape of a fine living specimen of the gigantic Salamander of Japan, the largest known species of amphibian. This singular creature, which somewhat resembles a monstrous water-newt, inhabits the lakes of the basaltic mountains of Japan, where it was discovered by the Dutch naturalist, Dr. von Siebold, but, even there, is considered a scarce animal. It is famous as being the nearest living analogue of the Fossil Man or *Homo diluvi testis* of Scheuchzer (*Andrias Scheuchzeri* of Geologists.) The specimen is at present about three feet in length, and is the first of the sort which has been taken alive to England.

Oil.—A bituminous substance has lately been discovered near Cairo, on the North-western Virginia Railroad, which contains a great amount of paraffine, and yields about 160 gallons of crude oil (similar to that obtained from coal) to the tun.

A Remarkable Fact has been developed by the publication of Lord Brougham's Mathematical and Physical Tracts. One of the papers on the subject of light and colors, was published in the Philosophical Transactions for 1796. The copy sent to the Royal Society contained remarks on the effect of exposing a plate of ivory stained with nitrate of silver to the rays of the spectrum, and also on the result of submitting the plate to the rays passing through a small aperture into a dark room. These suggestions were considered by Sir C. Blagden, to relate more to art than to pure science, and were accordingly omitted from the published copy. Had they appeared, it is certain that they would have led to the immediate discovery of photography, fifty years earlier than its actual introduction.

Navigation of the Ganges.—The first of the steam vessels designed by the Oriental Inland Steam Company, for the navigation of the Ganges, has just been tried on the Mersey. This vessel, which draws two feet of water, is 250 feet long and 30 feet beam, and is propelled by two high pressure engines of 200 horse power, nominal, but working up to about 800 actual horse power. The speed attained on the trial trip was about 14 miles an hour. The vessel is trussed both longitudinally and transversely, with wrought iron pipes, which are effective in withstanding both extension and compression. As this vessel has more power and a lighter draught of water than any now upon the Ganges, and also a higher rate of speed, her establishment upon that river is looked forward to with great interest. The Jumna, a sister vessel is also nearly ready; and these vessels, it is expected, will inaugurate a new era in the navigation of the Ganges, as combining greater power and speed, and a lighter draught of water, than any heretofore introduced upon any of the Indian rivers.

The United States Exploring Expedition, which was initiated some eight years ago under Capt. Page, and which has met with many delays in its work, has about finished its explorations, and it will now return to the United States. All the principal rivers tributary to the La Plata, have been surveyed. The Uruguay and the Salado remain yet to be examined.

From the statements which we have seen, it is evident that the recent meteor was visible at points between the Hudson river on the east, the Allegheny range on the west, Baltimore on the south, and the lower tier of New York counties on the north.

A Free Italian Press.—A daily paper, called *L'Iride*, has re-appeared at Naples, after twelve years' suppression. It says in the first number of its new issue:—"This is a glorious day for Naples. The blind ministerial despotism, which has polluted this favored country with bloodshed and rapine, is gone and forever. Glory to God, who has at length cast a compassionate glance on a people who have groaned under a slavery unparalleled in history."

Roman Ruins.—As some men were employed in digging the foundation for a house at the entrance of the rue Napoleon III, at Rouen, they discovered the remains of Roman constructions of old Rouen. They dug out from the soil a number of Roman bricks and tiles in good preservation. Some of the bricks were flat, and 18 inches long, by 12 wide, and appeared to have formed part of a subterranean flue or furnace. Similar articles had been found last year in digging out the foundations for other houses in the same street, and also a flint battle-axe, a bronze statuette, several medals, one of which bore the effigy of the Empress Lucilla, wife of Lucius Verus, the colleague of Marcus Aurelius, from 123 to 130 of the Christian era.

THE PHILADELPHIA MARKETS.

Flour and Meal.—The Flour market is very inactive, and prices are about 12½ c. per bbl. lower; demand confined mostly to the wants of the trade. Standard brands are scarce. Old Stock sells at $5 12; fresh ground 5 44. Extra family brands are selling at from $5 25 a 5 75, and fancy lots at from $5 87 to 6 50. Rye Flour and Corn Meal are but little inquired after. The former is held at $3 62½, and the latter at $3 25 a $3 37½, per barrel.

Grain.—There is a moderate amount of Wheat offering, and it is dull. Sales good Southern and Penna. red at $1 15, a $1 20; inferior, fair to good at $1 10 a 1 15, and white at 1 25 a 1 35—the latter for prime. Rye is steady at 73 cents for old Pennsylvania, and at 68 cents for new. Corn—A small sale of prime Southern yellow was made at 68 cents afloat. Oats are dull, with sales of 3000 bushels prime old Pennsylvania at 37 a 40 cents. New Southern is held at 34 cents, without much doing.

BYBERRY BOARDING SCHOOL, FOR GIRLS.—The Eleventh session of Byberry Boarding School, taught by Jane, Annie and Mary S. Hillborn, will commence on the first Second-day of Tenth month, 1860, and continue forty weeks without intermission, (including two terms of 20 weeks each.) The course of instruction embraces all the branches of a liberal English education.

Terms $60 per session of 20 weeks, one half payable in advance, the other half at the end of the session. For Circulars containing further particulars, address

JANE HILLBORN,
Byberry P. O., Penna.

8 mo. 4—2m.

EATON ACADEMY.—The Sixth Term of the above Institution will open for the reception of Pupils of both sexes on the First-day of the Tenth month next, and continue a period of forty weeks, divided into two equal sessions.

Terms $130.00 per term of 40 weeks.
65.00 per half " 20 "

Catalogues, containing particulars, will be sent to every person desiring the same.

Apply to
WILLIAM CHANDLER, Principal and Proprietor.
or WILLIAM A. CHANDLER, Principal Instructor.
Kennett Square, Chester County.

7 mo. 21, 1860.

Merrihew & Thompson, Prs., Lodge st.